We claim:

1. A process for converting thermal energy to mechanical energy in a Rankine cycle in which a cycle is repeated comprising the steps of vaporizing a working fluid with a heat source, expanding the resulting vapor and then cooling with a cold heat source to condense the vapor, and pressurizing the working fluid, wherein the working fluid comprises a working fluid selected from the group consisting of polyfluorinated ethers, polyfluorinated ketones and mixtures thereof

2. A process according to claim 1 wherein the working fluid is selected from the group consisting of methyl (trifluoroethyl) ether ($CH_3OCH_2CF_3$), methyl (heptafluoropropyl) ether ($CH_3OCF_2CHFCF_3$), di(trifluoroethyl) ether ($CF_3CH_2OCH_2CF_3$), methyl (hexafluoropropyl) ether ($CH_3OCF_2CF_2CHF_2$), methyl (pentafluoropropyl) ether ($CH_3OCH_2CF_2CF_3$), methyl (perfluorobutyl) ether ($C_4F_9OCH_3$), ethyl (perfluorobutyl) ether ($C_4F_9OC_2H_5$), methyl (perfluoromethyl) ketone (CF_3COCH_3), perfluoromethyl (trifluoroethyl) ketone ($CF_3CH_2COCF_3$), methyl (perfluooroethyl) ketone ($C_2F_5COCH_3$), methyl (perfluoropropyl) ketone ($F_3CF_2CF_2COCH_3$), perfluoroethyl (perfluoropropyl) ketone ($CF_3CF_2CF_2COC_2F_5$), methyl (octafluorobutyl) ketone ($C_2F_5CFHCF_2COCH_3$), di(perfluoropropyl) ketone ($CF_3CF_2CF_2COCF_2CF_2CF_3$), and mixtures thereof.

3. A process according to claim 1 wherein the working fluid is selected from the group consisting of methyl (perfluoropropyl) ether, methyl (perfluorobutyl) ether, perfluoroethyl perfluoroisopropyl ketone and mixtures thereof.

4. A process according to claim 3 wherein the working fluid comprises methyl (perfluoropropyl) ether.

5. A process according to claim 3 wherein the working fluid comprises methyl (perfluorobutyl) ether.

6. A process according to claim 3 wherein the working fluid comprises perfluoroethyl perfluoroisopropyl ketone.

7. A process for converting thermal energy to mechanical energy which comprises heating a working fluid to a temperature sufficient to vaporize the working fluid and form a pressurized vapor of the working fluid and then causing the pressurized vapor of the working fluid to perform meachnical work, wherein the working fluid comprises a working fluid selected from the group consisting of polyfluorinated ethers, polyfluorinated ketones and mixtures thereof.

8. A process according to claim 7 wherein the working fluid is selected from the group consisting of methyl (trifluoroethyl) ether ($CH_3OCH_2CF_3$), methyl (heptafluoropropyl) ether ($CH_3OCF_2CHFCF_3$), di(trifluoroethyl) ether ($CF_3CH_2OCH_2CF_3$), methyl (hexafluoropropyl) ether ($CH_3OCF_2CF_2CHF_2$), methyl (pentafluoropropyl) ether ($CH_3OCH_2CF_2CF_3$), methyl (perfluorobutyl) ether ($C_4F_9OCH_3$), ethyl (perfluorobutyl) ether ($C_4F_9OC_2H_5$), methyl (perfluoromethyl) ketone (CF_3COCH_3), perfluoromethyl (trifluoroethyl) ketone ($CF_3CH_2COCF_3$), methyl (perfluooroethyl) ketone ($C_2F_5COCH_3$), methyl (perfluoropropyl) ketone ($F_3CF_2CF_2COCH_3$), perfluoroethyl (perfluoropropyl) ketone ($CF_3CF_2CF_2COC_2F_5$), methyl (octafluorobutyl) ketone ($C_2F_5CFHCF_2COCH_3$), di(perfluoropropyl) ketone ($CF_3CF_2CF_2COCF_2CF_2CF_3$), and mixtures thereof.

9. A process according to claim 7 wherein the working fluid is selected from the group consisting of methyl (perfluoropropyl) ether, methyl (perfluorobutyl) ether, perfluoroethyl perfluoroisopropyl ketone and mixtures thereof.

10. A process according to claim 9 wherein the working fluid comprises methyl (perfluoropropyl) ether.

11. A process according to claim 9 wherein the working fluid comprises methyl (perfluorobutyl) ether.

12. A process according to claim 9 wherein the working fluid comprises perfluoroethyl perfluoroisopropyl ketone.

13. A process according to claim 7 wherein the pressurized vapor of the working fluid is subsequently cooled below its boiling point and then recycled by again heating the working fluid to again form a pressurized vapor of the working fluid which is then caused to perform additional mechanical work.

14. A binary power cycle comprising a primary power cycle and a secondary power cycle, wherein high temperature water vapor is the primary working fluid in the primary power cycle, and a second working fluid is employed in the scondary power cycle to convert thermal enery to mechanical energy and is heated to form a pressurized vapor of the second working fluid and the pressurized vapor of the second working fluid is caused to perform mechanical work, wherein the working fluid comprises a working fluid selected from the group consisting of polyfluorinated ethers, polyfluorinated ketones and mixtures thereof.

15. A binary power cycle according to claim 14 wherein the working fluid comprises a working fluid selected from the group consisting of methyl (trifluoroethyl) ether ($CH_3OCH_2CF_3$), methyl (heptafluoropropyl) ether ($CH_3OCF_2CHFCF_3$), di(trifluoroethyl) ether ($CF_3CH_2OCH_2CF_3$), methyl (hexafluoropropyl) ether ($CH_3OCF_2CF_2CHF_2$), methyl (pentafluoropropyl) ether ($CH_3OCH_2CF_2CF_3$), methyl (perfluorobutyl) ether ($C_4F_9OCH_3$), ethyl (perfluorobutyl) ether ($C_4F_9OC_2H_5$), methyl (perfluoromethyl) ketone (CF_3COCH_3), perfluoromethyl (trifluoroethyl) ketone ($CF_3CH_2COCF_3$), methyl (perfluooroethyl) ketone ($C_2F_5COCH_3$), methyl (perfluoropropyl) ketone ($F_3CF_2CF_2COCH_3$), perfluoroethyl (perfluoropropyl) ketone ($CF_3CF_2CF_2COC_2F_5$), methyl (octafluorobutyl) ketone ($C_2F_5CFHCF_2COCH_3$),

di(perfluoropropyl) ketone ($CF_3CF_2CF_2COCF_2CF_2CF_3$), and mixtures thereof.

16. A binary power cycle according to claim 14 wherein the working flluid is selected from the group consisting of methyl (perfluoropropyl) ether, methyl (perfluorobutyl) ether, perfluoroethyl perfluoroisopropyl ketone and mixtures thereof.

17. A binary power cycle according to claim 15 wherein the working flluid comprises methyl (perfluoropropyl) ether.

18. A binary power cycle according to claim 15 wherein the working flluid comprises methyl (perfluorobutyl) ether.

19. A binary power cycle according to claim 15 wherein the working flluid comprises perfluoroethyl perfluoroisopropyl ketone.